# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/814,312 | 03/30/2004 | Bradley C. Aldrich | 42P18895 | 5152 |

| | EXAMINER |
|---|---|
| 59796          7590          04/05/2007 | |
| INTEL CORPORATION | LINDLOF, JOHN M |

| c/o INTELLEVATE, LLC | ART UNIT | PAPER NUMBER |
|---|---|---|
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| MINNEAPOLIS, MN 55402 | | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 04/05/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

| | | **Application No.** | **Applicant(s)** |
|---|---|---|---|
| **Office Action Summary** | | 10/814,312 | ALDRICH ET AL. |
| | | **Examiner** | **Art Unit** | |
| | | John Lindlof | 2183 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on <u>30 March 2004</u>.

2a) ☐ This action is **FINAL.**    2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) <u>1-36</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-36</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>30 March 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>3/30/2004</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

1.    Claims 1-36 are presented for examination.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-36 rejected under 35 U.S.C. 102(e) as being anticipated by Paver et al.,

US Patent Application Publication 2004/0034760 (hereinafter Paver).

The following is quoted directly from the MPEP and will be used in reference to

the rejection of Claims 1-5 below:

If the difference between the prior art and the claimed invention is limited to descriptive material stored on or employed by a machine, Office personnel must determine whether the descriptive material is functional descriptive material or nonfunctional descriptive material, as described supra in paragraphs IV.B.1(a) and IV. B.1(b). Functional descriptive material is a limitation in the claim and must be considered and addressed in assessing patentability under 35 U.S.C. 103. Thus, a rejection of the claim as a whole under 35 U.S.C. 103 is inappropriate unless the functional descriptive material would have been suggested by the prior art. In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999). Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. In re Ngai, **>367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004) (combining printed instructions and an old product into a kit will not render the claimed invention nonobvious even if the instructions detail a new use for the product).< Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability). Common situations involving nonfunctional descriptive material are: - a computer-readable storage medium that differs from the prior art solely with respect to

nonfunctional descriptive material, such as music or a literary work, encoded on the medium, - a computer that differs from the prior art solely with respect to nonfunctional descriptive material that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer), or - a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention. Thus, if the prior art suggests storing a song on a disk, merely choosing a particular song to store on the disk would be presumed to be well within the level of ordinary skill in the art at the time the invention was made. The difference between the prior art and the claimed invention is simply a rearrangement of nonfunctional descriptive material.

2.     As per claim 1, Paver teaches:

A method of executing an instruction comprising: receiving residual data of a first image and decoded pixels of a second image (the origin of data received is non-functional descriptive material as described above, which has no effect on the process as claimed); zero-extending a plurality of unsigned data operands of the decoded pixels producing a plurality of unpacked data operands (para. [0099] – [102], fig. 11, plurality of source data operands); adding a plurality of signed data operands of the residual data to the plurality of unpacked data operands producing a plurality of signed results (para. [0099] – [102], fig. 11, plurality of result data operands); saturating the plurality of signed results producing a plurality of unsigned results (para. [0099] – [102], fig. 11, saturation may be signed or unsigned).

3.     As per claim 2, Paver teaches:

The method as recited in claim 1, wherein the residual data comprises data results from an inverse discrete cosine transform (DCT) operation and the second image comprises a previously decoded video frame (the type of data received is non-

functional descriptive material as described above, which has no effect on the process as claimed).

4.      As per claim 3, Paver teaches:

The method as recited in claim 1, wherein the second image is an earlier decoded block from a same video frame as the first image (the type of data received is non-functional descriptive material as described above, which has no effect on the process as claimed).

5.      As per claim 4, Paver teaches:

The method as recited in claim 1, wherein the zero-extending, the adding and the saturating are part of a video estimation function (the name given to the process is non-functional descriptive material as described above, which has no effect on the process as claimed).

6.      As per claim 5, Paver teaches:

The method as recited in claim 1, wherein the zero-extending, the adding and the saturating are part of a video compensation function (the name given to the process is non-functional descriptive material as described above, which has no effect on the process as claimed).

7.      As per claim 6, Paver teaches:

The method as recited in claim 1, wherein the instruction is a Single-Instruction/Multiple-Data (SIMD) instruction (para. [0099]).

8.      As per claim 7, Paver teaches:

The method as recited in claim 1, wherein the method comprises executing a

Single-Instruction/Multiple-Data (SIMD) instruction (fig. 11, para. [0099]).

9. .    As per claim 8, Paver teaches:

The method as recited in claim 1, wherein the method is performed utilizing

Single-Instruction/Multiple-Data (SIMD) circuitry (fig. 11, para. [0099]).

10.     Claims 9-13 are rejected for reasons corresponding to those given above for

claims 1-2, 5, 6.

11.     Claims 14-15 are rejected for reasons corresponding to those given above for

claim 1.

12.     As per claim 16, Paver teaches:

The apparatus as recited in claim 14, wherein the plurality of adders comprises

four 16-bit adders (fig. 11, para. [0099]).

13.     As per claim 17, Paver teaches:

The apparatus as recited in claim 14, wherein selection controls for the first

plurality of multiplexers is according to a qualifier specified in a Single-

Instruction/Multiple-Data (SIMD) instruction (para. [0102]).

14.     As per claim 18, Paver teaches:

The apparatus as recited in claim 14, wherein configuration of the first plurality of

multiplexers, the plurality of adders, and the plurality of saturation units is selected

according to microcode identified by a Single-Instruction/Multiple-Data (SIMD)

instruction (fig. 11, para. [0102]).

15.     As per claim 19, Paver teaches:

The apparatus as recited in claim 14, wherein configuration of the first plurality of

multiplexers, the plurality of adders, and the plurality of saturation units is selected

according to decode logic and a Single-Instruction/Multiple-Data (SIMD) instruction (fig.

11, para. [0099]).

16.     As per claim 20, Paver teaches:

The apparatus as recited in claim 14, wherein the first plurality of multiplexers,

the plurality of adders, and the plurality of saturation units form a Single-

Instruction/Multiple-Data (SIMD) instruction execution circuit (fig. 11).

17.     Claims 21-22 are rejected for reasons corresponding to those given above for

claims 2, 5.

18.     Claims 23-29 are rejected for reasons corresponding to those given above for

claims 14-22.

19.     Claims 30-36 are rejected for reasons corresponding to those given above for
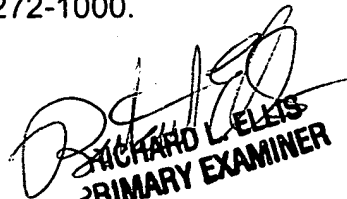
claims 14-22.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Lindlof whose telephone number is (571) 270-1024. The examiner can normally be reached on Monday-Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RICHARD L. ELLIS
PRIMARY EXAMINER

JL